



# Regulation XIII – New Source Review

Date  
South Coast AQMD  
Call-in #:  
Passcode:

# Agenda

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- Previous Working Group Meeting Summary
- Background
- Reducing Demand of Offsets
- Summary
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## Previous Working Group Meeting Summary

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- Recap of take away points from last working group meeting

## Background

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- » Supply of NOx offsets as RECLAIM facilities transition to command-and-control is a concern
- » Availability of offsets are needed to ensure permits can be issued
- » Evaluating a variety of areas to reduce the demand and increase supply of offsets
- » Working within the regulatory framework of the:
  - » Federal Clean Air Act
  - » SB288 which prohibits the South Coast AQMD from amending New Source Review rules or regulations to be less stringent than those that existed on December 30, 2002

## Initial Concepts for Reducing Demand and Increasing Supply of Offsets

### Reducing Demand of Offsets

Pollutant Thresholds for Major Sources

Offset Exemptions

NSR Applicability Using Air Quality Modeling

Other?

### Increasing Supply of Offsets

Refining BARCT Discounting Methodology

Conversion of RTCs for ERCs

Mobile Sources

Inter-pollutant Trading

Other?

## Framing the Issues

### Reducing Demand of Offsets

Pollutant Thresholds for Major Sources



Question 1: Can a Major Polluting Facility be Defined by Pollutant?

Offset Exemptions



Question 2: What scenarios are exempt from offsetting when complying with a BARCT rule?

NSR Applicability Using Air Quality Modeling



Question 3: Can air quality modeling be used to demonstrate no net increase?

Other?



Seeking input

## Question 1: Can a Major Polluting Facility be Defined by Pollutant?

### \* Background

- \* South Coast AQMD BACT Guidelines defines a major polluting facility<sup>1</sup>
  - “If a threshold for any one criteria pollutant is equaled or exceeded, the facility is a major polluting facility”
- \* Rule 1302 definition of major polluting facility references a facility which emits or has the potential to emit above specific thresholds
- \* A facility may exceed the threshold for another pollutant besides NOx but is considered a major facility for NOx under the current BACT Guidelines

<sup>1</sup> Federal Clean Air Act uses major source or major stationary source in referencing a major polluting facility

## Pollutant Thresholds for Major Polluting Facility

Pollutant	South Coast Air Basin	Riverside County Portion of the Salton Sea	Riverside County of Mojave Dessert
VOC	10	25	100
NOx	10	25	100
SOx	70	70	100
CO	50	100	100
PM10	70	70	100
PM2.5	70	---	---



## Discussion and Analysis

- » Proposed revisions to NSR applicability to address NSR Reform and offset calculations are specific to major polluting facilities
- » Defining a major polluting facility, based on each individual pollutant
  - » Is a more accurate representation if a facility is a major polluting facility
  - » Can reduce the demand for offsets when a facility does not exceed the major polluting facility threshold for a specific pollutant
- » Not in conflict with the Federal Clean Air Act
- » No impact to SB288 as existing New Source Review bases applicability and offsets for major source modifications on PTE-to-PTE

## U.S. EPA Response to Question 1 : Can a Major Polluting Facility be Defined by Pollutant?

### • U.S. EPA's response

#### Notes from Face-to-Face:

- Need to check interpretations in staff reports and what thresholds were used in the maintenance plans

## Recommendation

Recommendation for Question 1: Yes, a Major Polluting Facility can be defined by pollutant.

- \* Major polluting facility can be defined by pollutant
- \* No conflict with Federal Clean Air Act or SB288
- \* Will reduce the demand for offsets, as fewer modifications will be subject to applicability
- \* Provide additional clarity to Rule 1302 and revise South Coast AQMD BACT Guidelines to define a major polluting facility based on exceeding each individual pollutant threshold

## Question 2: What scenarios are exempt from offsetting when complying with a BARCT rule?

### ▪ Background

- Rule 1304 (c)(4) exempts a facility from offsetting if:
  - Source is installed or modified solely to comply with regulations provided there is no increase in maximum rating
- Federal Clean Air Act (CAA) 182 (e)(2) exempts offsetting in Extreme Areas for:
  - Modification of an existing source if such modification consists of installation of equipment required to comply with the applicable implementation plan, permit, or this chapter

## Discussion and Analysis

- Exemption under Rule 1304 (c)(4) for offsets – no exemption for BACT
- Federal CAA 182 (e)(2) overlaps with Rule 1304 - if scenarios qualify for offsetting exemption under federal CAA 182 (e)(2) no additional offsetting obligation
- Slight differences between Rule 1304 and federal CAA 182 (e)(2)
  - Rule 1304 (c)(4) limits the exemption to the maximum rating
  - Both Rule 1304 (c)(4) and CAA 182 (e)(2) require the installation of equipment
- Evaluated five scenarios that may qualify for offsets under Rule 1304 and CAA 182 (e)(2)

### Notes from Face-to-Face:

- EPA needed to confirm if offsets would be required for co-pollutants
- Although not explicitly stated in CAA, EPA interprets no increase in maximum rating/capacity as a requirement

## Analysis of Rule 1304 (c)(4)

**"The source is installed or modified"**

- Can apply to replacement equipment or retrofit

**Regulatory Compliance**

- Comply with District, state, or federal air pollution control laws, rules, regulations or orders

**Other Limitations**

- No increase in maximum rating

### **Rule 1304(c)(4) – Regulatory Compliance**

"The source is installed or modified solely to comply with District, state, or federal air pollution control laws, rules, regulations or orders, as approved by the Executive Officer or designee, and provided there is no increase in maximum rating."

## Analysis of Federal CAA 182 (e)(2)

**"modification  
of an existing  
source"**

- Federal reference to "existing source" is an existing facility

**"modification  
consists of  
installation of  
equipment"**

- Can be interpreted as installation of pollution control equipment or replacement equipment (basic equipment)

**Regulatory  
Compliance**

- Comply with applicable implementation plan, permit, or this chapter

### **Federal CAA 182 (e)(2) – Modifications**

"The offset requirements of this part shall not be applicable in Extreme Areas to a modification of an existing source if such modification consists of installation of equipment required to comply with the applicable implementation plan, permit, or this chapter"

## Analysis of CA Health & Safety Code §

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- Federal reference to "existing source" is an existing facility

CA H&SC has a similar provision exempting offsets for regulatory compliance....

- Comply with applicable implementation plan, permit, or this chapter

### CA H&SC §42301.2 – Offsetting exemption

"A district shall not require emission offsets for any emission increase at a source that results from the installation, operation, or other implementation of any emission control device or technique used to comply with a district, state, or federal emission control requirement, including, but not limited to, requirements for the use of reasonably available control technology or best available retrofit control technology, unless there is a modification that results in an increase in capacity of the unit being controlled."



## Five Scenarios for Question 2

Scenario 1: What pollutants are exempt from offsetting when retrofitting equipment?

Scenario 2: Does a like-for-like replacement qualify for the offsetting exemption?

Scenario 3: Will the replacement of two or more units with one unit qualify for the offsetting exemption?

Scenario 4: Will the replacement of one unit with two or more units qualify for the offsetting exemption?

Scenario 5: Will the replacement of two or more units with two or more units qualify for the offsetting exemption?

## Scenario 1: What pollutants are exempt from offsetting when retrofitting equipment?

**Example** SCR is added to comply with the NO<sub>x</sub> limit in Rule 1146

**Question** Will an increase in PM emissions from SCR be exempt from offsets?

**Analysis** SCR is added to comply with South Coast AQMD rule. Retrofit consistent with Rule 1304 (c)(4) and CAA 182(e)(2)

**Recommendation:** Co-pollutants associated with retrofitting a unit to comply with a South Coast AQMD ozone precursor rule are exempt from offsetting

## Scenario 2: Does a like-for-like replacement qualify for the offsetting exemption?

### Example

Facility replaces an existing boiler with a replacement boiler to comply with the NO<sub>x</sub> limit in Rule 1146

### Question

If a unit is being replaced for the purpose of complying with a South Coast AQMD rule, is the replacement unit exempt from offsets?

### Analysis

Replacement at BACT, no increase in capacity  
Replacement is to comply with South Coast AQMD rule  
Both Rule 1304 (c)(4) and CAA 182(e)(2) reference "install"

**Recommendation:** One for one equipment replacement to comply with a South Coast AQMD ozone precursor rule, with no increase in capacity, is exempt from offsetting

### Scenario 3: Will the replacement of two or more units with one unit qualify for the offsetting exemption?

**Example** Facility replaces two existing small boilers with one large replacement boiler to comply with the NO<sub>x</sub> limit in Rule 1146

**Question** If one unit replaces two or more existing units for the purpose of complying with a South Coast AQMD rule, is the replacement unit exempt from offsets?

**Analysis** Replacement at BACT, no increase in total capacity  
Replacement is to comply with South Coast AQMD rule  
Both Rule 1304 (c)(4) and CAA 182(e)(2) reference "install"

**Recommendation:** An individual piece of equipment replacing two or more units to comply with a South Coast AQMD ozone precursor rule, with no increase in total capacity, is exempt from offsetting

## Scenario 4: Will the replacement of one unit with two or more units qualify for the offsetting exemption?

**Example** Facility replaces an existing boiler with two or more boilers to comply with the NO<sub>x</sub> limit in Rule 1146

**Question** If a unit is being replaced for the purpose of complying with a South Coast AQMD rule, are the replacement units exempt from offsets?

**Analysis** Replacements at BACT, no increase in total capacity  
Replacements are to comply with South Coast AQMD rule  
Both Rule 1304 (c)(4) and CAA 182(e)(2) references "install"

**Recommendation:** Two or more pieces of equipment that are replacing one unit to comply with a South Coast AQMD ozone precursor rule, with no increase in total capacity, are exempt from offsetting

## Scenario 5: Will the replacement of two or more units with two or more units qualify for the offsetting exemption?

**Example** Facility replaces two or more boilers with two or more boilers to comply with the NO<sub>x</sub> limit in Rule 1146

**Question** If units are being replaced for the purpose of complying with a South Coast AQMD rule, are the replacement units exempt from offsets?

**Analysis** Replacements at BACT, no increase in total capacity  
Replacements are to comply with South Coast AQMD rule  
Both Rule 1304 (c)(4) and CAA 182(e)(2) references "install"

**Recommendation:** Two or more pieces of equipment that are replacing two or more units to comply with a South Coast AQMD ozone precursor rule, with no increase in total capacity, are exempt from offsetting

## U.S. EPA Response to Question 2 : What scenarios are exempt from offsetting when complying with a BARCT rule?

### Notes from Face-to-Face:

- EPA needs to confirm with headquarters
- Additional notes of replacements:
  - Replacements have to meet the criteria specified in CFR (no change in design parameters)
  - Life extension projects (circumvention of life extension)
  - Routine, maintenance, repair, and replacement provision??
  - Determination of actual vs boiler plate capacity (e.g. old equipment not capable of running at original rating due to deterioration)
    - Option: if actual emissions at 80%, could use boiler plate rating

## Recommendations Five Scenarios for Question 2

Scenario 1: Co-pollutants associated with retrofitting a unit to comply with a South Coast AQMD ozone precursor rule are exempt from offsetting

Scenario 2: One for one equipment replacement to comply with a South Coast AQMD ozone precursor rule, with no increase in capacity, is exempt from offsetting

Scenario 3: An individual piece of equipment replacing one unit to comply with a South Coast AQMD ozone precursor rule, with no increase in capacity, is exempt from offsetting. Should include caveats from U.S. EPA (i.e. design parameters)

Scenario 4: Two or more pieces of equipment that are replacing one unit to comply with a South Coast AQMD ozone precursor rule, with no increase in total capacity, are exempt from offsetting

Scenario 5: Two or more pieces of equipment that are replacing two or more units to comply with a South Coast AQMD ozone precursor rule, with no increase in total capacity, are exempt from offsetting



### Question 3: Can air quality measures demonstrate no net increase?

Notes from Face-to-Face:

- EPA needs to confirm with headquarters, but might not be a viable option

- » Staff is evaluating the BACT applicability for co-pollutants emitted from the installations and modifications that are needed to comply with a South Coast AQMD rule
- » Staff exploring potential options that would allow some flexibility for BACT for co-pollutants, such as:
  - » Accounting for co-benefits based on regional or local modeling (e.g., 0.4 pounds of PM reduced for every pound of NOx reduced)
  - » Looking into the BACT thresholds for state and federal major
  - » Focus is on installation of SCR and applicability of NSR for PM<sub>10</sub>/PM<sub>2.5</sub>
- » Seeking input from U.S. EPA

## U.S. EPA Response to Question 3: Can air quality modeling be used to demonstrate no net increase?

Notes from Face-to-Face:

- EPA needs to confirm with headquarters, but might not be a viable option

## Recommendation

If U.S. EPA confirms that this is not a viable option then recommend that South Coast AQMD does not pursue any further

# Summary

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## Next Steps

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### Increasing Supply of Offsets

Refining BARCT  
Discounting Methodology

Conversion of RTCs  
for ERCs

Mobile Sources

Inter-pollutant Trading

Other?

# Contacts

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